## REMARKS

Applicants believe the present response to be a full and complete response to the Office Action of August 9, 2007. Claims 1-3, 5, and 8-20 are currently pending and presented for further examination. Claims 1, 9, 14, 15 and 20 have been amended. Claims 4-8, 10, 12-13 have been canceled without prejudice. Support for the amended claims can be found throughout the original specification and claims and in particular on page 9, lines 21-24 of the specification. Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

## Rejections Under 35 U.S.C. § 103(a)

In the Office Action dated August 9, 2007, the Examiner rejected claims 1-3, 5, and 8-20 under 35 U.S.C. § 103(a), as allegedly being unpatentable over <u>Takahashi '713</u> in view of Fennhoff (U.S. 5,914,431) and optionally in view of <u>Shinagawa '530</u> (Japanese Published Patent Application No. 09124530).

Applicants respectfully traverse the prior art rejections, under 35 U.S.C. § 103(a), for the reasons presented below.

In the Remarks accompanying the amendment filed June 8, 2007, applicants argued that the present invention is patentably distinguished over Takahashi '713.

The presently claimed invention recites a catalyst system comprising a hydrochloric acid aqueous solution whereas Takahashi '713 discloses hydrogen chloride gas and Shinagawa used concentrated sulfuric acid. Thus, the present invention achieves, for the first time, the combined properties of high yield, high purity, transparency and reduced yellowing with a process unburdened by the high cost and inconvenience associated with hydrogen chloride gas and/or concentrated sulfuric acid.

In the official action of August 9, 2007, the Examiner has cited a new reference Fennhoff, (U.S. 5,914,431) (hereinafter referred to as "the '431 patent") which allegedly teaches the use of "aqueous HCl"; and, therefore, when combined with Takahashi '713 produces the presently claimed invention. Applicants respectfully disagree in view of the following:

- 1. in all of the examples of the '431 patent, hydrogen chloride gas is used in combination with aqueous HCl.
- 2. the '431 patent Specification does not teach or suggest the advantages of using only aqueous hydrochloric acid in contrast to the high cost and inconvenience of using HC1 gas.
- 3. the '431 patent is directed entirely toward solving the problems associated with removal of the sulfur compound; a problem to which items 1 and 2 above are not relevant.

Since the '431 patent is directed toward an entirely different problem while, in effect, accepting the problems associated with hydrogen chloride gas, there is no suggestion leading to the present invention which, for the first time, uses only aqueous hydrochloric acid benefiting from lower cost while achieving the high product qualities mentioned hereinabove. The combined teachings of the prior art do not lead to the success of the present invention; this is particularly true because hydrogen chloride gas and hydrochloric acid are irrevocably tied to each other in the teachings of the '713 patent.

In amended claims 1, 9 and 20 the ratio of sulfur bearing compound to hydrochloric acid aqueous solution (calculated as HCl) and the ratio of fluorenone to the sulfur bearing compound are recited.

The prior art fails to disclose these ratios. In fact, Takahashi et al fail to disclose the proportion of the mercaptocarboxylic acid relative to fluorenone; only a amount (the usual catalyst amount) of the mercaptocarboxylic acid is added to fluorenone in the Examples. In the Examples of Takahashi et al, the weight ratio of fluorenone/ $\beta$ -mercaptopropionic acid is about 1.0 to 0.03. In Shinagawa et al, the equivalent weight ratio of  $\beta$ -mercaptopropionic acid to fluorenone is 0.001 to 0.01. In contrast, Fennhoff fails to disclose the mercaptocarboxylic acid itself and hence does not disclose the proportion. Accordingly, the references fail to disclose the use of the mercaptocarboxylic acid at a higher level than the usual catalyst amount relative to fluorenone.

## Conclusion

For the reasons advanced above, Applicants respectfully submit that the application is in condition for allowance and that action is earnestly solicited.

Applicant's Counsel remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. If any point remains in issue which the Examiner

feels may be best resolved through a personal or telephone interview, please contact the Undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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